Cause No. 44,365-01-B

Ex Parte	)	In the 181st District Court
	)	Potter County, Texas
Ernest Lopez	)	181st Judicial District

Affidavit of Dr. Michael Laposata

I, Michael Laposata, being duly sworn, state as follows:

1. My name is Michael Laposata. I am a Professor of Pathology and Medicine at Vanderbilt University School of Medicine. I am also the Pathologist-in-Chief, Vanderbilt University Hospital, Chief of Clinical Services and Division of Laboratory Medicine, and Director of Clinical Laboratories, Vanderbilt University Medical Center. Before assuming these responsibilities, I was a Professor of Pathology at Harvard Medical School, with clinical responsibilities at various institutions, including Massachusetts General Hospital (Mass General). I have an M.D. and Ph.D. in Biochemistry, Cellular, and Molecular Biology from the Johns Hopkins University School of Medicine. My curriculum vita is attached as Exhibit 1.

2. I have particular expertise in coagulation, and I teach and publish regularly in this area. Ex. 1. When I was at Massachusetts General (which is affiliated with Harvard), we found that some children with coagulopathies (bleeding or clotting disorders) were being misdiagnosed as victims of abuse. This is an easy mistake for clinicians to make since it is frequently impossible to distinguish between bruises and bleeding caused by abuse, and bruises and bleeding caused by coagulopathy. Relatively routine laboratory tests (PT, PTT, etc.) are often sufficient to confirm the existence of a coagulopathy. However, more specific tests are required to identify the source and nature of the coagulopathy.

3. I have reviewed the laboratory tests via information provided to me by telephone for Isis Vas (DOB 4/26/00) taken at Northwest Texas Hospital on October 28-29, 2000. It is my understanding that the child was admitted to the hospital at approximately 11:30 a.m. The first coagulation test, which was taken approximately an hour after admission, shows a PTT > 212 seconds (normal range 27-39.7), a PT of 20.4 seconds (normal range 10.6-12.6), and fibrinogen of 94 mg/dl (normal range 147-389) (in the absence of anticoagulants presumably). These results establish that the child had a serious coagulopathy shortly after hospital admission.

4. Bleeding disorders are more common than is often presumed. One coagulopathy alone (von Willebrand disease) affects approximately 1% of the population and has been mistaken for child abuse in children with this disorder who experience

only a minor injury. Other bleeding disorders that have been misdiagnosed as child abuse include idiopathic thrombocytopenic purpura, vitamin K deficiency, meningitis with disseminated intravascular coagulation (DIC), and Henoch-Schonlein purpura. Some bleeding disorders are congenital; others arise from infectious sources. Some are relatively common; others are rare.

5. To distinguish between the many bleeding disorders that can be mistaken for child abuse, it is necessary to conduct additional tests beyond the PT, PTT, fibrinogen, and platelet count. *See* Exs. 2-4. Since it is my understanding that no additional coagulation tests were conducted at the hospital, it is not possible to determine the cause and nature of this child's bleeding disorder with any certainty. However, the tests that were conducted establish that the coagulopathy is likely to include more than one bleeding disorder, not only disseminated intravascular coagulation (DIC). This is because DIC has a greater impact on the PT than the PTT. Here, the reverse is true, indicating that there is another coagulation problem, possibly complicated by DIC.

6. Other laboratory tests confirm that the coagulopathy was present for several days before hospital admission. Laboratory tests from a blood draw at 12:08 p.m. (approximately half an hour after hospital admission) show a low albumin (2.5 g/dl v. normal range 3.4-4.2), high AST/SGOT (215 u/l v. normal range 15-41), and high ALT/SGPT (106 u/l v. normal range 11-39). It is my understanding that it has been suggested that these lab results have been proposed to be consistent with DIC resulting from head trauma occurring after 10:15 a.m. on 10/28. However, it is impossible in my estimation for trauma just to the head to damage the liver in this timeframe. These test results are highly consistent with liver disease, which is possibly reversible, but clearly present in this child. Given these test results, some signs of bleeding or bruising (possibly subtle) in the days before admission would not be unexpected.

7. I understand that the Court was previously provided with one of my articles that addresses this issue. *Children with Signs of Abuse: When Is It Not Child Abuse?,* Am J Clin. Pathol 2005;123 (Supp 1). Ex. 2. I am also attaching excerpts from a more recent presentation on bruising and bleeding in children with coagulopathies, including (1) a list of noninflicted causes for bruising (also applicable to bleeding); and (2) comparison pictures of child abuse v. coagulopathy. As these pictures illustrate, it may be impossible to distinguish between abuse and coagulopathy other than through laboratory testing. Ex. 3.

8. I am also attaching excerpts from a more general presentation on the failure of clinicians to order appropriate coagulation tests. These excerpts include: (1) a list of coagulation tests that may be needed to identify specific coagulation defects; (2) specific follow-up tests for prolonged PTT; (3) hospital mistakes in selecting coagulation tests; and (4) a chart indicating that clinicians found that coagulation interpretations (narratives) by coagulation experts impacted their differential diagnosis nearly 80% of the time. Ex. 4.

9. When asked to review this case, I was hesitant to do so given time constraints. In most cases involving infant injury, there are many medical records to be reviewed and many grey areas. In this case, however, the laboratory tests are dispositive: this child had a coagulopathy for some days prior to her collapse, possibly complicated by DIC. With this coagulopathy, bleeding, bruising and possible thrombosis are to be expected and can occur in any body part or organ, before or after hospital admission.

I swear under penalty of perjury that the foregoing is true and correct.

Michael Laposata, M.D., Ph.D.

Subscribed and sworn to before me this 2ND day of April, 2010.

Notary Public in and for the
State of Tennessee

My commission expires: 4/16/2011

VICTORIA ELLIOTT
STATE
OF
TENNESSEE
NOTARY
PUBLIC
RUTHERFORD COUNTY